ſcopes, with ſuch apertures and magnifying powers, under limited lengths, as, in the opinion of the beſt and undeniable judges, who have experienced them, far exceed any thing that has been hitherto produced, as repreſenting objects with great diſtinctneſs, and in their true colours.

John Dollond.

XCIX. *An Account of ſome extraordinary Effects ariſing from Convulſions; being Part of a Letter to* John Huxham, *M. D. and F. R. S. from* William Watſon, *M. D. F. R. S.*

6 June, 1758.

Read June 15. 1758. IN the month of January 1757, I was concerned for a young gentlewoman, who, if the number, continuance, and frequency of their returns, be conſidered, ſuffered the moſt violent and ſevere convulſions I ever knew. At ſome times the muſcular ſpaſms were general; at other times ſingle muſcles only, or a number of them, ſubſervient to ſome particular purpoſe in the animal oeconomy, were affected. And ſuch was the peculiarity of this caſe, that after and in proportion as any ſingle muſcle, or any determined number of muſcles, had been in a ſtate of ſpaſm, a paralytic inability ſucceeded to thoſe muſcles, which very much diſordered and impaired, and ſeveral times even for no ſmall continuance prevented the patient

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from performing, ſeveral of her neceſſary functions. When the muſcles, for inſtance, ſubſervient to deglutition had been convulſed, for many hours after the fits had left her, ſhe has not been able to ſwallow a ſingle drop of liquid: ſo that when attempts have been made to cauſe her to drink, unleſs the liquor was immediately thrown back, there was imminent danger of her being ſtrangled. When her eyes have been affected, ſeveral times a compleat *gutta ſerena*, and total blindneſs, has enſued; the patient being able to bear the ſtrong day-light with open eyes, without being ſenſible of its influence, or in the leaſt contracting her widely dilated pupils. After one of theſe fits the blindneſs continued full five days; and I began to be in fear for the return of her ſight.

You, Sir, who are ſo excellently well verſed in the animal oeconomy, are not to be informed, that vocification is performed in the *aſpera arteria*; but that the articulation of ſounds into ſyllables and words is modulated principally by the tongue, and muſcles about the larynx. In the caſe before you, very early in the diſeaſe, the ſpaſms ſeized the muſcles about the larynx: the conſequence of which was, that after they were over, the patient was unable to utter a word. This faculty however ſhe again once recovered; but it continued a very ſhort time, as the fits returned, which again left her deprived of the power of ſpeech. After having loſt her voice a ſecond time, her power of ſpeech did not return, even after ſhe was freed from her convulſions, and her general health reſtored. Fourteen months paſſed, whilſt this patient continued abſolutely ſpeechleſs; when,

when, after having violently heated herſelf by four hours dancing, on a ſudden her power of ſpeech returned, and it has continued perfectly free ever ſince.

What is ſtill further remarkable in this caſe is, that during the whole time of this patient's continuing ſpeechleſs, her life was rendered yet more uncomfortable by her having, from the injury to her brain by the ſpaſms, forgot how to write, ſo as to expreſs her meaning that way: but upon the recovery of her ſpeech, this faculty likewiſe returned, which ſhe has retained ever ſince. During the ſeverity of this diſeaſe, which continued ſeveral weeks, almoſt every day of which, from the number and violence of the convulſions, I feared would be the patient's laſt, nothing was left unattempted, which I imagined could tend to prevent the return of the ſpaſms, or leſſen their effects. My endeavours ſo far happily ſucceeded, that her fits did not return; but the conſequences of them continued, more particularly her inability to ſpeak. After ſome months however, when ſhe was recruited in her ſtrength, I was deſirous of trying the effects of electricity, more particularly applied about her throat. This was accordingly attempted; but ſuch was the ſtate of her nerves, and their ſenſibility to its effects, that electrizing brought back the fits, which again affected her ſight: ſo that I was compelled to deſiſt, leſt, in endeavouring to reſtore her ſpeech, I might not only fail in this attempt, but might bring poſſibly on a permanent blindneſs. I determined therefore to truſt the whole to time, which has happily removed all her complaints.